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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,038	02/27/2002	James R. Komorowski	NUTRI.023A	6775

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EXAMINER	
CHOI, FRANK I	

ART UNIT	PAPER NUMBER
1616	

DATE MAILED: 09/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/090,038	KOMOROWSKI ET AL.	
	Examiner	Art Unit	
	Frank I. Choi	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *7 and 38-54* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *7,38-54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/7/2006 has been entered.

As a preliminary matter, there is no double patenting rejection in the Final Office Action (3/8/2006). The double patenting rejection referenced by the Applicant was made in the 11/136,794 application cited by the Applicant.

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 7, 38, 39, 41, 42, 44-49, 53 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Rath (US Pat. 6,693,129).

Rath expressly discloses a method of treating high LDL and high triglycerides by administering a composition containing 165 mcg of biotin and 10 mcg of chromium glycinate falling within the scope of applicant's claims (Column 6, lines 34-68, Column 7, Column 8, lines 1-20).

Alternatively, at the very least the claimed invention is rendered obvious within the meaning of 35 USC 103, because the prior art discloses products and uses that contain the same exact ingredients/components as that of the claimed invention. See In re Fitzgerald, 205 USPQ 594 (CCPA 1980). See also In re May, 197 USPQ 601, 607 (CCPA 1978). See also Ex parte Novitski, 26 USPQ2d 1389, 1390-91 (Bd Pat. App. & Inter. 1993).

Examiner has duly considered Applicant's arguments but deems them unpersuasive for the reasons of record set forth in the prior Office Action and the further reasons below.

As indicated in the prior Office Action, the case law does not support Applicant's position that any compound which would have a positive or deleterious effect on serum levels of total cholesterol, LDL, cholesterol, triglyceride, or HDL cholesterol materially affects the basic and novel characteristics of Applicant's claimed invention. On Page 3 of the remarks (6/7/2006), the Applicant makes the following assertion: "the Examiner argues that 'based on the case law', Applicants must demonstrate that one or more that one or more of Rath ingredients Applicants contend are excluded by Claim 7 synergistically affects cholesterol levels compared to chromium or biotin alone. *Office Action* at 5". However, the Examiner did not make said argument. The Examiner argued that "Applicant has not provided any evidence by actual experimentation that the combination of the other ingredients with biotin and chromium would result in an increase in HDL which is significantly different from biotin and chromium alone". Since the Applicant's

evidence does not appear directed to the Examiner's argument, the evidence is not sufficient to overcome the rejection. In any case, the reference does not compare the combination of chromium, niacin and biotin versus chromium and biotin alone.

The Applicant argues that the Examiner has not met the burden of showing that the individuals in Rath would necessarily be in need of a composition that raises serum HDL levels. However, as admitted by the Applicant, HDL levels are an independent risk factor for coronary heart disease and stroke. As such, anyone would benefit from increased HDL levels regardless of whether one's HDL level would be considered low. See Kashyap (Abstract) (lowering LDL and VLDL while raising HDL significantly decreases the risk for coronary disease).

As indicated in the prior Office Action, the rejection herein is based on inherency. As such, absent evidence that the prior art method does not inherently result in increase in HDL levels, the Graham v. John Deere factors are not applicable. Once Applicant provides evidence that the prior art method would not result in an increase in HDL, then the Graham v. John Deere factors would be applicable. See In re Best, 195 USPQ 430, 433 (CCPA 1977) (Applicant claimed a process for preparing a hydrolytically-stable zeolitic aluminosilicate which included a step of "cooling the steam zeolite ... at a rate sufficiently rapid that the cooled zeolite exhibits a X-ray diffraction pattern ...." All the process limitations were expressly disclosed by a U.S. patent to Hansford except the cooling step. The court stated that any sample of Hansford's zeolite would necessarily be cooled to facilitate subsequent handling. Therefore, a prima facie case under 35 U.S.C. 102 /103 was made. Applicant had failed to introduce any evidence comparing X-ray diffraction patterns showing a difference in cooling rate between the claimed process and that of Hansford or any data showing that the process of Hansford would result in a

product with a different X-ray diffraction. Either type of evidence would have rebutted the prima facie case under 35 U.S.C. 102. A further analysis would be necessary to determine if the process was unobvious under 35 U.S.C. 103.); Ex parte Novitski, 26 USPQ2d 1389 (Bd. Pat. App. & Inter. 1993) (The Board rejected a claim directed to a method for protecting a plant from plant pathogenic nematodes by inoculating the plant with a nematode inhibiting strain of P. cepacia. A U.S. patent to Dart disclosed inoculation using P. cepacia type Wisconsin 526 bacteria for protecting the plant from fungal disease. Dart was silent as to nematode inhibition but the Board concluded that nematode inhibition was an inherent property of the bacteria. The Board noted that applicant had stated in the specification that Wisconsin 526 possesses an 18% nematode inhibition rating.). Any benefit from reducing the number of active ingredients, does not appear sufficient to establish the non-obviousness of using the combination of ingredients to reduce high LDL and triglycerides. As indicated above, the claims do not require the exclusion of the other active ingredients. As such, there is no requirement for the Examiner to show that there would be motivation to omit the ingredients. Further, before considering any evidence of unexpected results, Applicant must first show that the prior art method would not inherently result in increased levels of HDL. US Pat. 5,948,772 discloses that chromium controls lipid serum levels, decreases LDL and increases HDL levels (Column 2, lines 30-38). Since the Applicant has not provided evidence of that the prior art composition would not inherently result in increased HDL levels the rejection is maintained.

Claims 7, 38-50, 53, 54 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over McCarty et al. (US Pat. 5,929,066).

McCarty et al. expressly discloses a method for reducing hyperglycemia and stabilizing the level of serum of glucose comprising administering to an individual in need thereof between about 50 and 1000 mcg/day or between about 500 and 1000 mcg/day of chromium as chromic tripicolinate in combination with between about 25 mcg and 200 mg/day or between about 1 mg and 100 mg/day of biotin, where the amounts of chromic picolinate and biotin are selected together to provide a greater than additive effect, where the biotin or chromic tripicolinate can be orally and/or parenterally administered (Claims 1-9) falling within the scope of applicant's claims. It is inherent that the method of administering the combination of chromium and biotin to reduce hyperglycemia and stabilize the level of serum of glucose will treat dyslipidemia and increase HDL cholesterol levels (See US Pat. 6,140,304, Column 12, lines 61-66; US Pat. 5,948,772 (chromium controls lipid serum levels, decreases LDL and increases HDL levels (Column 2, lines 30-38)).

Alternatively, at the very least the claimed invention is rendered obvious within the meaning of 35 USC 103, because the prior art discloses products and uses that contain the same exact ingredients/components as that of the claimed invention. See also In re May, 197 USPQ 601, 607 (CCPA 1978). See also Ex parte Novitski, 26 USPQ2d 1389, 1390-91 (Bd Pat. App. & Inter. 1993).

Examiner has duly considered Applicant's arguments but deems them unpersuasive for the reasons of record set forth in the prior Office Action.

The examiner has duly considered the Applicant's affidavit (6/7/2006), however, said evidence fails to show one of ordinary skill in the art would not expect that the expressly disclosed method would not increase HDL levels and treat dyslipidemia. The evidence provided

by the Applicant shows that the medicine itself can effect lipid levels separate from any effects the medicine has on hyperglycemia and/or stabilizing glucose levels. . See Exhibit A of the Affidavit (6/7/2006). As such, Applicant's evidence does not show that reducing hyperglycemia and stabilizing glucose levels would not necessarily increase HDL levels and treat dyslipidemia. See Exhibit A of the Affidavit (6/7/2006). Further, chromium does increase HDL levels. As such, it is inherent that the claimed method would treat dyslipidemia and increase HDL levels.

Applicant argues that other causes of hyperglycemia and dyslipidemia exist, however, one must look to the population of persons treated by the prior art, i.e. type II diabetics. Applicant's references (including Roberts, R, (2003)(previously submitted) do not establish that an increase in HDL and normalization of lipids would not result in type II diabetics. Since inherency is established, the burden is on Applicant to show that the prior art method would not result in an increase in HDL before evidence of unobviousness is considered. As such, the Applicant's arguments relative to obviousness does not overcome the rejection herein. Applicant argues that an association is not sufficient to establish inherency. However, in In re Novitski there was no evidence provided to show that the prior art method inherently read on the claimed process other than Applicant's own Specification.

Claims 7, 38-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCarty (US Pat. 5,789,401) or McCarty (US Pat. 5,929,066), each in view of de la Harpe et al. (US Pat. 5,948,772) and Brand-Miller for the reasons of record set forth in the prior Office Actions and in further view of Rath (US Pat. 6,693,129) in further view of Sears (US Pat. 6, 140,304) and the further reasons below.

McCarty (US Pat. 5,789,401) or McCarty (US Pat. 5,929,066) were discussed in the prior Office Actions and the same are incorporated herein.

de la Harpe et al., Brand-Miller were discussed in the prior Office Actions and the same are incorporated herein. Further de la Harpe et al. discloses that chromium controls serum lipids, decreases LDL and increases HDL levels (Column 2, lines 30-38).

Rath discloses a composition containing biotin and chromium glycinate which is effective in lowering LDL and triglycerides which can be administered orally or parenterally, and that those skilled in that art would understand that changes can be made and equivalents substituted and that effective amounts may vary depending on variations in patients, durations of treatment, etc. and that modifications may made to adapt a particular situation and composition of matter (Column 5, lines 45-56, Column 6, lines 36-68, Column 7, Column 9, lines 1-33).

Sears discloses that insulin resistance due to hyperinsulinemia is commonly associated with increased glycosation of hemoglobin due to increased serum glucose levels and that hyperinsulinemia is also associated with increased triglycercides, decreased HDL cholesterol levels and elevated percent body fat (Column 12, lines 60-66).

Examiner has duly considered Applicant's arguments but deems them unpersuasive for the reasons set forth in the prior Office Action and the further reasons below.

Contrary to Applicant's arguments, the rejection is not based solely on the expectation that treatment of the underlying disease, diabetes, actually diabetes II, would be effective in treating the symptom, hypercholesterolemia. As indicated above, Applicant's evidence does not show there is no causal relationship between treatment of diabetes II and lowered serum HDL levels. In any case, as indicated above, the prior art discloses that chromium does decrease

HDL levels, as such, the prior art composition would be expected to decrease HDL levels and treat dyslipidemia.

de la Harpe discloses that hypercholesterolemia is present in diabetics. (De La Harpe, Column 1, lines 24-36). Diabetics suffer from ineffective insulin and compromised glucose metabolism which leads to hypercholesterolemia. As such, one of ordinary skill in the art would expect that biotin which is known to be effective in controlling the cause of the hypercholesterolemia, i.e. diabetes, hypercholesterolemia which is the result of uncontrolled diabetes would be alleviated by adminstration of biotin. Contrary to Applicant's arguments, the McCarty references do not provide evidence that the activity of biotin is due to a mechanism independent of the function of insulin. The fact that biotin is effective in type I diabetics does not preclude biotin from acting also by a mechanism which is dependent on the function of insulin. Even if such were the case, Applicant's arguments do not take away from the fact that hypercholesterolemia is a symptom of diabetes, as such, one of ordinary skill in the art would expect that treating the underlying cause, i.e. diabetes, would be effective in treating the symptom, i.e. hypercholesterolemia and that the prior art teaches a composition containing both biotin and chromium which is used to lower LDL and triglycerides. As such, contrary to Applicant's arguments, the effectiveness of biotin in altering serum lipid levels in not found exclusively in Applicant's Specification. Further, the reason or motivation to modify the reference may often suggest what the inventor has done, but for a different purpose or to solve a different problem. It is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by applicant. In re Linter, 173 USPQ 560 (CCPA 1972); In re Dillon, 16 USPQ2d 1897 (Fed. Cir. 1990), cert. denied, 500 U.S. 904 (1991). As indicated

above, Applicant has provided no evidence that the use of the phrase "consisting essentially of" excludes the one or more of the components in Rath. As such, as indicated above, the prior art does disclose or suggest Applicant's claimed invention. Further, Applicant has provided no evidence that one of ordinary skill art would not be able to develop a method of treatment based on an association between hyperglycemia and lowered HDL levels. Obviousness does not require absolute predictability. Further, inherency can be used in a 103 rejection to reject claims. In re Napier, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995) (affirmed a 35 U.S.C. 103 rejection based in part on inherent disclosure in one of the references). As such, the prior art method which discloses the administration of biotin and chromium will inherently increase HDL levels.

Applicant amends the claims by adding the limitation "synergistically" and cites to Figures 2 and 14 and pages 15 and 25 of the Specification for supported of this synergistic effect. However, the evidence of synergy is not commensurate in scope with the breath of the claims as only specific amounts are tested. The claims now indicated that the synergistic effect is increase in HDL cholesterol levels. However, it is not clear what amounts of chromium complex and biotin were tested, as such, it is uncertain whether the synergistic activity encompasses the entire ranges of amounts claimed. Whether the unexpected results are the result of unexpectedly improved results or a property not taught by the prior art, the "objective evidence of nonobviousness must be commensurate in scope with the claims which the evidence is offered to support." In other words, the showing of unexpected results must be reviewed to see if the results occur over the entire claimed range. In re Clemens, 206 USPQ 289, 296 (CCPA 1980) (Claims were directed to a process for removing corrosion at "elevated temperatures" using a certain ion exchange resin (with the exception of claim 8 which recited a temperature in excess of 100C).

Appellant demonstrated unexpected results via comparative tests with the prior art ion exchange resin at 110C and 130C. The court affirmed the rejection of claims 1-7 and 9-10 because the term "elevated temperatures" encompassed temperatures as low as 60C where the prior art ion exchange resin was known to perform well. The rejection of claim 8, directed to a temperature in excess of 100C, was reversed.). See also In re Peterson, 65 USPQ2d 1379, 1382-85 (Fed. Cir. 2003) (data showing improved alloy strength with the addition of 2% rhenium did not evidence unexpected results for the entire claimed range of about 1-3% rhenium); In re Grasselli, 218 USPQ 769, 777 (Fed. Cir. 1983) (Claims were directed to certain catalysts containing an alkali metal. Evidence presented to rebut an obviousness rejection compared catalysts containing sodium with the prior art. The court held this evidence insufficient to rebut the prima facie case because experiments limited to sodium were not commensurate in scope with the claims.). Applicant's citation to figure 14 and paragraph 0110 still does not show what amounts were administered.

Even assuming the evidence of synergy is commensurate in scope with the claims, both McCarty '066 and McCarty '401 disclose the combination of biotin and chromium complex results in synergistic effects (McCarty '066, Column 2, lines 56-65; McCarty '401, Column 2, lines 49-57). Further, it is expected from the prior art that the combination of chromium complex and biotin would result in controlled serum lipids, decreased LDL and increased HDL cholesterol levels. As such, the expectation is not based solely on treatment of an underlying disease. Further, it does not appear that the amounts claimed as being synergistic are significantly different that which are normally used in the prior art or that the group of individuals having dyslipidemia or raising serum HDL levels and would benefit from increasing

serum HDL cholesterol levels are significantly different from the group of individuals having hyperinsulinemia and increased serum glucose levels. As indicated above, one of ordinary skill in the art would expect that the synergistic effect of biotin and chromium on hyperglycemia would have a synergistic effect on HDL levels as one of ordinary skill in the art would expect that treatment of hyperglycemia in type II diabetics would result in increased HDL levels.

Therefore, the claimed invention, as a whole, would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention has been collectively taught by the combined teachings of the references.

Conclusion

A facsimile center has been established in Technology Center 1600. The hours of operation are Monday through Friday, 8:45 AM to 4:45 PM. The telecopier number for accessing the facsimile machine is 571-273-8300.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Choi whose telephone number is (571)272-0610. Examiner maintains a compressed schedule and may be reached Monday, Tuesday, Thursday, Friday, 6:00 am – 4:30 pm (EST).

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Dr. Johann Richter, can be reached at (571)272-0646. Additionally, Technology Center 1600's Receptionist and Customer Service can be reached at (571) 272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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September 25, 2006

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